

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS

In re: Pharmaceutical Industry Average Wholesale Price Litigation	) ) )	CIVIL ACTION NO. 01-12257-PBS (Doc. No. 6182)
--	-------------	--

**DECLARATION OF LAUREN J. STIROH**  
**IN SUPPORT OF DEY, INC., DEY, L.P., AND DEY L.P., INC.'S MOTION FOR**  
**PARTIAL SUMMARY JUDGMENT**

Lauren Stiroh declares, pursuant to 28 U.S.C. § 1746, that:

1. I am Lauren J. Stiroh, an economist and Senior Vice President of NERA Economic Consulting (NERA), an international economic consulting firm. I have been engaged by the defendant ("Dey") as an expert in this case. I hold a Ph.D. in economics from Harvard University. A substantial part of my consulting practice focuses on the economics of competition and pricing and the determination of economic damages.
2. I have submitted two prior reports in this matter: "Report of Lauren J. Stiroh" (herein, "Stiroh Report") dated March 6, 2009, and "Rebuttal Report of Lauren J. Stiroh" dated May 7, 2009, both of which I authored. My qualifications are described in my March 6 report and in my *curriculum vitae*, which is appended to this report as **Appendix A**.
3. I have been asked by counsel for Dey to describe the analyses underlying **Exhibits 5** and **6** of the Stiroh Report, which present the distribution of Dey shipments and sales to wholesalers as a percentage of the Wholesale Acquisition Cost ("WAC") prevailing for each National Drug Code ("NDC") at the time of the shipment. For convenience, these Exhibits are appended to

this Declaration. I have also been asked to compare Dey's Average Manufacturer Prices ("AMPs") and publicly available Federal Supply Schedule ("FSS") prices for Dey's products to Dey's Average Wholesale Prices ("AWPs") and WACs for the drug products at issue. Figures showing these comparisons are appended to this Declaration as **Figures A through K**.<sup>1</sup>

4. Data for these exhibits and figures were derived from Dey's wholesaler activity database, which contains transaction data between Dey and wholesalers;<sup>2</sup> Dey's chargeback database, which is comprised of an annual header file and an annual detail file for each NDC;<sup>3</sup> Dey's AMP data;<sup>4</sup> First DataBank data, Medispan data, and Red Book data (herein, "compendia data"), which contain postings and updates of reported prices, such as the AWP and WAC and other prices;<sup>5</sup> and FSS prices, which are publicly

---

<sup>1</sup> The data illustrated in these pricing charts were also included in my initial report in **Figures 1A through 1K** and **2A through 2K** of that report.

<sup>2</sup> These files were produced in the form of two mdb files, one containing data during the time period 01/01/1992 to 12/31/2005 and the other containing data during the time period 01/01/2006 to 03/31/2007.

<sup>3</sup> The chargeback data were produced in the form of txt files. Albuterol data cover the period 01/01/1992 to 03/31/2007; cromolyn sodium data cover the period 01/01/1994 to 03/31/2007; and ipratropium bromide data cover the period 01/01/1997 to 03/31/2007. According to the labels that appear on each CD, sales and chargeback files were produced for the following drugs and time periods: Albuterol (01/01/1992 to 07/31/2004); Albuterol MDI (08/01/2003 to 03/31/2007); Albuterol MDI Refill (07/25/2000 to 09/30/2004); Albuterol Multidose (08/01/2003 to 03/31/2007); Albuterol Unitdose (08/01/2003 to 03/31/2007); Cromolyn Sodium (1994 to 2004) and (08/01/2003 to 03/31/2007); and Ipratropium (01/01/1997 to 07/31/2004) and (08/01/2003 to 03/31/2007). Data for 2003 and 2004 were taken only from the dataset that contained a full year of records for each year.

<sup>4</sup> AMP information is provided at the nine-digit level. The last two digits of an NDC represent the package size. Therefore, I have calculated the package price by multiplying the AMP, which is a weighted average over all package sizes, by the number of units in a package to get the package price.

<sup>5</sup> The date ranges vary depending on the availability of data from each drug compendia. The date range for Medispan WAC postings includes data from 1996Q2 through 2006Q4. First DataBank and Red Book postings were provided by the United States Department of Justice, on behalf of the United States, and Ven-A-Care, ("plaintiffs") damages expert, Dr. Mark Duggan. The date range provided for First DataBank WAC postings runs from 1992Q1 to 2004Q4 and the date range provided for Red Book WAC postings runs from 1995Q2 to 2006Q2. Because the date ranges differ for each data source, the

available prices that are reported by the US Department of Veterans Affairs on its website.

5. Table 1 below lists the drugs at issue, the NDC for each product, the date the product was first shipped, and the date of the last shipment.

**Table 1**  
**Drugs at Issue**  
**By NDC**  
**1992 to 2007**

Drug/Dosage	NDC	First Shipment Date	Last Shipment Date
	(a)	(b)	(c)
<b>Albuterol</b>			
Albuterol Sulfate UD, 0.083% Inhalation solution, (25s)	49502069703	Q1 1992	Q2 2004
Albuterol Sulfate UD, 0.083% Inhalation solution, (60s)	49502069760	Q2 1992	Q3 2004
Albuterol Sulfate UD, 0.083% Inhalation solution, (30s)	49502069733	Q4 1993	Q1 2004
Albuterol Sulfate MD Inhalation Solution 0.5%, 20 mL	49502019620	Q1 1996	Q1 2000
Albuterol Inhalation Aerosol Metered-Dose Inhaler, 17g	49502030317	Q1 1996	Q2 2000
Albuterol Inhalation Aerosol MDI Refill, 17g	49502030327	Q4 1996	Q2 2000
Albuterol Sulfate MD Inhalation Solution 0.5% (Sterile) 20 mL	49502010501	Q2 1999	Q3 2003
Albuterol Inhalation Aerosol Metered-Dose Inhaler, 17g	49502033317	Q1 2000	Q1 2003
Albuterol Sulfate UD, 0.083% Inhalation solution, (25s)	49502069724	Q1 2004	--
Albuterol Sulfate UD, 0.083% Inhalation solution, (30s)	49502069729	Q1 2004	--
Albuterol Sulfate UD, 0.083% Inhalation solution, (60s)	49502069761	Q1 2004	--
Albuterol Sulfate Inhalation Solution Single-Pak™, 0.083%, (30s)	49502069730	Q1 2005	--
Albuterol Inhalation Aerosol MDI Refill, 17g	49502033327	--	--
<b>Cromolyn Sodium</b>			
Cromolyn Sodium UD Inhalation Solution 20 mg/2 mL, (60s)	49502068902	Q1 1994	Q3 2004
Cromolyn Sodium UD Inhalation Solution 20 mg/2 mL, (120s)	49502068912	Q2 1994	Q1 2004
Cromolyn Sodium UD Inhalation Solution 20 mg/2 mL, (60s)	49502068961	Q1 2004	Q1 2008
<b>Ipratropium Bromide</b>			
Ipratropium Bromide Inhalation Solution 0.02%, (25s)	49502068503	Q1 1997	Q1 2004
Ipratropium Bromide Inhalation Solution 0.02%, (60s)	49502068560	Q1 1997	Q2 2004
Ipratropium Bromide Inhalation Solution 0.02%, (30s)	49502068533	Q3 1997	Q1 2004
Ipratropium Bromide Inhalation Solution 0.02%, (30s)	49502068529	Q1 2004	Q3 2005
Ipratropium Bromide Inhalation Solution 0.02%, (25s)	49502068524	Q1 2004	Q2 2006
Ipratropium Bromide Inhalation Solution 0.02%, (60s)	49502068561	Q1 2004	Q3 2008
Ipratropium Bromide Inhalation Solution 0.02%, Single-Pak™, (30s)	49502068530	Q1 2005	--
Ipratropium Bromide Inhalation Solution 0.02%, (30s)	49502068531	Q2 2005	--
Ipratropium Bromide Inhalation Solution 0.02%, (60s)	49502068562	Q2 2005	--
Ipratropium Bromide Inhalation Solution 0.02%, 2.5 mL, (25s)	49502068526	Q2 2006	--

aggregate dollar amount of sales for each set of exhibits, shown at the bottom of columns (c), (f), (i), and (l), also differ.

6. Dey's WACs are undiscounted invoice prices to wholesalers. **Exhibits 5** and **6** to my March 6 report demonstrate that Dey's WACs are economically meaningful invoice prices to wholesalers.
7. **Exhibits 5** and **6** compare prices per unit of the Dey drugs at issue as a percentage of Dey's prevailing WACs for those products using the WAC postings from the three drug pricing compendia.<sup>6</sup> **Exhibit 5** compares Dey's invoice price on shipments to wholesalers to its WAC, and **Exhibit 6** compares Dey's average net sales price (adjusted for discounts) to wholesalers to Dey's WACs. The analyses include sales made through the last quarter in which a WAC posting was made for each source of compendia data.
8. The analysis performed in **Exhibit 5** includes all shipments of the Dey drugs at issue to wholesalers over the time period for which data were available.<sup>7</sup> The analysis underlying **Exhibit 5** is done at the invoice level for each NDC. For each invoice and NDC, I compare the average price per unit to the WAC that was posted at the time of each invoice (this is referred to as the "prevailing WAC" in my prior reports). **Exhibit 5** aggregates the results of this analysis and shows the distribution of dollar sales that were made at

---

<sup>6</sup> There is also a set of figures titled "First DataBank Adjusted" which excludes sales made for NDCs 49502069703, 49502069733, and 49502069760 during the period between 1995Q3 and 1997Q4. During this time period, First DataBank reported a WAC that was different from the WAC postings in the other two compendia (as set forth in Stroh Report, footnote 157).

<sup>7</sup> **Exhibit 5** only shows shipments from Dey to wholesalers and does not include Dey's shipments to other classes of trade.

various percentages of WAC.<sup>8</sup> Approximately 90 percent of Dey's shipments to wholesalers were invoiced at Dey's WAC.

9. **Exhibit 5** reflects the price at which the products are invoiced to wholesalers and does not include any adjustments to the invoice price. Shipments to wholesalers include products that will eventually be distributed by the wholesaler to Dey's contract customers and products that will be sold by the wholesaler to an end customer at a price negotiated by the wholesaler and the end customer. At the time that the product is shipped to the wholesalers, there is no way to determine which units will be resold by the wholesaler at a markup on the cost to the wholesaler of acquiring the product, and which will be distributed to Dey's contract customers subject to Dey's contract price with that end customer.
10. **Exhibit 6** shows the distribution of Dey's sales to wholesalers relative to WAC, after adjusting for discounts and other price adjustments offered to wholesalers. As the exhibit shows, more than 70 percent of Dey's sales to wholesalers over the time period for which data were available were within 5 percent of WAC.
11. **Exhibit 6** restricts the analysis only to those shipments that represent sales to wholesalers that wholesalers then sell on to end customers. These are Dey's direct sales to its wholesalers. **Exhibit 6** excludes the shipments where the

---

<sup>8</sup> For the analyses performed in **Exhibits 5** and **6**, I have excluded records for which there is a non-positive or missing price per unit and a non-negative revenue, a non-positive revenue, or no available WAC data. First DataBank does not include WAC postings for the following NDCs: 49502068526, 49502068530, 49502068531, 49502068562, and 49502069730. Red Book does not include WAC postings for the following NDCs: 49502019620, 49502030317, and 49502030327. **Exhibit 6** also excludes records for which there is an unmatched chargeback such that a record in chargeback data does not correspond to a record in wholesaler activity data.

wholesaler acted only as a distributor and did not have any role in determining the contract price.<sup>9</sup>

12. The analysis underlying **Exhibit 6** is done on a quarterly basis for each NDC, billing customer number, and period during which a particular posting of WAC was in place. The price per unit is calculated by dividing the adjusted revenue by the adjusted quantity for each NDC and billing customer number, aggregated over the quarter and period in which the product was shipped to the wholesaler.<sup>10</sup> For each observation, the revenue calculated incorporates all adjustments (credit memo rebates, returned goods, ship price errors, and other credits). Revenue is also adjusted for a prompt pay discount offered to wholesalers.
13. **Figures A through K** show Dey's reported WACs for each pricing compendia relative to its AWP, AMP and FSS prices for the drug products at issue. The prices shown on the Figures are package prices for each Dey drug product at issue. These Figures show prices for Dey's drugs at the product level, and therefore may include more than one NDC on each chart. For example, **Figure C** reports WACs, AWP, AMP, and FSS prices for "Ipratropium Bromide Inhalation Solution 0.02%, 0.5 mg/2.5 mL, package of 30." This drug product was first sold as NDC 49502068533 which, according to Medispan data, became inactive in January 1, 2004, and then

---

<sup>9</sup> These are Dey's indirect sales: sales made subject to the price negotiated between Dey and the end customer, but shipped to the customer through a wholesaler.

<sup>10</sup> Adjustments to wholesalers' purchases and contract sales cannot be directly traced to individual shipments made to wholesalers. The analysis is done on a quarterly basis to group together transactions that occur in a similar time frame so that price adjustments can be applied to purchases made close in time to the date of the adjustment.



NDC 49502068529, which was the second generation NDC for this particular ipratropium bromide product.

14. Dey's WACs are its invoice prices to wholesalers and it is Dey's practice to update its WACs. Figures A through K show that Dey's declining WACs reflect its average pricing activity and that Dey periodically updated its WACs for each drug product at issue. Dey's WACs follow the same general pricing pattern as the AMP data and FSS prices for the same drugs, declining over time as the AMPs declined or, in a few instances, increasing if the underlying AMPs increased.<sup>11</sup> Dey's WACs are economically meaningful reflections of its transaction prices.
15. The above opinions do not constitute the entirety of my opinions in this matter but are the opinions relevant to Dey's motion at this time. I reserve the right to revise my opinions if additional information is provided to me.

I declare under the penalty of perjury that the foregoing is true and correct.

EXECUTED THIS 25<sup>th</sup> day of June, 2009.

  
Lauren Stiroh

---

<sup>11</sup> See, for example, Figure D.

**NERA**

Economic Consulting

**Lauren J. Stiroh**  
Senior Vice President

National Economic Research Associates, Inc.  
50 Main Street  
White Plains, New York 10606  
+1 914 448 4000 Fax +1 914 448 4040  
Direct dial: +1 914 448 4143  
[lauren.stiroh@nera.com](mailto:lauren.stiroh@nera.com)

**Appendix A**

**LAUREN J. STIROH**  
**SENIOR VICE PRESIDENT**

Dr. Stiroh specializes in the economics of antitrust, intellectual property, and commercial damages. She has conducted research, prepared expert reports, and testified in court on a variety of issues arising from antitrust allegations such as monopolization, exclusionary conduct, tying, vertical restrictions, price fixing, predatory pricing, price discrimination, and abuse of standard setting. Dr. Stiroh has analyzed the competitive effects of mergers, acquisitions, and joint ventures. She has also written expert reports and consulted on matters related to assessing impact and damages in class action litigation. She has performed or critiqued damage calculations in more than a dozen industrial settings.

Dr. Stiroh has also written and testified on the subject of intellectual property value and valuation. She has assessed and critiqued damages from patent, copyright, and trademark infringement in industries including semiconductors, biotechnology, pharmaceuticals, medical devices, and consumer products. Dr. Stiroh is co-editor and contributing author of *Economic Approaches to Intellectual Property Policy, Litigation and Management*, published in 2005.

Much of Dr. Stiroh's work and research focuses on the intersection of antitrust and intellectual property litigation. She has written articles and given speeches on this subject for the American Bar Association, Law Seminars International, the Practising Law Institute, and the 2002 US Department of Justice and Federal Trade Commission joint hearings on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy." She has analyzed market power in technology markets and evaluated the competitive implications of licensing arrangements, including tying and patent pooling provisions.

Dr. Stiroh has presented her research before the FTC, the DOJ, the Canadian Competition Bureau, and in expert testimony.

Dr. Stiroh holds a Ph.D. in Economics from Harvard University, an M.A. in Economics from the University of British Columbia and a B.A. in Economics from the University of Western Ontario.



Lauren J. Stiroh

## Education

### **Harvard University**

Ph.D., Economics, August 1996

### **University of British Columbia**

M.A., Economics, November 1991

### **University of Western Ontario**

B.A., Economics, June 1990

## Professional Experience

### **NERA Economic Consulting**

March 2005- *Senior Vice President.* Directs projects in the economics of antitrust, intellectual property and consumer damages.  
2002-2005 *Vice President.*  
1999-2002 *Senior Consultant.*  
1996-1999 *Senior Analyst.*

### **Unidad de Desarrollo Social**

March 1994 *Consultant.* Prepared two studies for the National Planning Department concerning the effect of the trade liberalization in Colombia on the distribution of income.  
August 1994

### **Harvard University**

1994-1996 *Research Assistant.* Research Assistant for Professor Dale Jorgenson. Estimated human capital and national income accounts.

### **Harvard University**

1993-1996 *Teaching Fellow in Economics.* Taught principles of economics, the introductory and core course in economics at Harvard College.

## Honors and Professional Activities

Member, American Economic Association.  
Derek Bok Teaching Award, 1996.

Harvard University Scholarship 1991-1994.  
Social Sciences and Humanities Research Council of Canada Fellowship 1991-1994.

Lauren J. Stiroh

University Graduate Fellowship (University of British Columbia) 1990-1991.  
Huron College Corporation Scholarship (University of Western Ontario) 1987-1989.

## **Selected Industry Experience**

- Advertising and Marketing Media
  - Coupons
  - In-store Advertising
  - Outdoor Advertising
  - Yellow Pages
- Airline Ticketing
- Biotechnology
- Book Publishing
- Consumer Goods
  - Bicycle Components
  - Contact Lenses
  - Food and Beverages
  - Powered Toothbrushes
  - Recreational Vehicle Accessories
  - Lawn and Garden Products
- Employment
- Entertainment
  - Movie Exhibition
  - Movie Theatres
  - Sports Entertainment Exhibition
- Fast Food Franchises
- Herbicides
- Information Technology/Information Systems
  - Data Backup Systems
  - Magnetic Recording Media
  - Microfiche/Microfilm
  - Rewriteable CDs
  - Computer Memory
  - Integrated Circuits and Semiconductors
- Long Distance Telephone Service
- Marine Engines
- Medical Devices
- Pharmaceuticals
- Real Estate
- Ski Resorts
- Soda Ash
- Sporting Events
- Steel
- Sulfuric Acid
- Textile Rental

## **Expert Testimony and Reports**

### ***Abbott Laboratories, et al. v. Church & Dwight, Inc.***

Rebuttal Report on behalf of Plaintiff Abbott Laboratories in connection with *Abbott Laboratories, et al. v. Church & Dwight, Inc.*, May 29, 2009.

Expert report on behalf of Plaintiff Abbott Laboratories in connection with *Abbott Laboratories, et al. v. Church & Dwight, Inc.*, April 17, 2009.

### ***United States of America ex rel. Ven-A-Care of the Florida Keys, Inc., v. Dey, Inc.***

Deposition testimony on behalf of Defendants Dey, Inc., Dey L.P., Inc., and Dey L.P. in connection with *United States of America ex rel. Ven-A-Care of the Florida Keys, Inc., v. Dey, Inc.*, May 12-13, 2009.

Lauren J. Stiroh

Rebuttal Report on behalf of Defendants Dey, Inc., Dey L.P., Inc., and Dey L.P. in connection with *United States of America ex rel. Ven-A-Care of the Florida Keys, Inc., v. Dey, Inc.*, May 7, 2009.

Expert report on behalf of Defendants Dey, Inc., Dey L.P., Inc., and Dey L.P. in connection with *United States of America ex rel. Ven-A-Care of the Florida Keys, Inc., v. Dey, Inc.*, March 6, 2009.

Declaration in support of Defendants Dey, Inc., Dey L.P., Inc., and Dey L.P.'s Motion to Compel Discovery in connection with *United States of America ex rel. Ven-A-Care of the Florida Keys, Inc., v. Dey, Inc.*, February 11, 2009.

***Lanard Toys, Ltd. v. Dollar General Corporation, et al.***

Expert report on behalf of Defendants Dollar General Corporation and Dolgencorp, Inc. in connection with *Lanard Toys, Ltd. v. Dollar General Corporation, et al.*, May 7, 2009.

***DigaComm, LLC. v. Vehicle IP, LLC***

Testimony on behalf of Respondents Vehicle IP, LLC and Bradley Larschan in the arbitration hearing in connection with *DigaComm, LLC. v. Vehicle IP, LLC, Bradley Larschan*, October 30, 2008.

Deposition testimony on behalf of Defendant Vehicle IP, LLC in connection with *DigaComm, LLC v. Vehicle IP, LLC, Bradley Larschan* (Arbitration and Federal Litigation), September 22, 2008.

Expert report on behalf of Defendant Vehicle IP, LLC in connection with *DigaComm, LLC v. Vehicle IP, LLC, Bradley Larschan* (Arbitration), September 12, 2008.

Expert report on behalf of Defendants Vehicle Safety and Compliance, LLC, Pittco Capital Partners, LP, Pittco Capital Partners II, LP, J.R. "Pitt" Hyde III and Andrew Seamons in connection with *DigaComm, LLC v. Vehicle Safety and Compliance, LLC, Pittco Capital Partners, LP, Pittco Capital Partners II, LP, J.R. "Pitt" Hyde III and Andrew Seamons* (Federal Litigation), September 12, 2008.

***Re Hydrogen Peroxide Antitrust Litigation***

Deposition testimony on behalf of Defendant Arkema, Inc. in connection with *In Re Hydrogen Peroxide Antitrust Litigation*, July 31, 2008.

Expert report on behalf of Defendant Arkema, Inc. in connection with *In Re Hydrogen Peroxide Antitrust Litigation*, July 7, 2008.

Lauren J. Stiroh

***Dairy Queen Operators' Association, et al. v. International Dairy Queen, Inc. et al.***

Testimony on behalf of Plaintiffs Dairy Queen Operators' Association, et al, in the arbitration hearing in connection with *Dairy Queen Operators' Association, et al. v. International Dairy Queen, Inc. et al.*, May 22, 2008 and June 25, 2008.

Rebuttal report on behalf of Plaintiffs Dairy Queen Operators' Association, et al., in connection with *Dairy Queen Operators' Association, et al. v. International Dairy Queen, Inc. et al.*, May 2, 2008.

Deposition testimony on behalf of Plaintiffs Dairy Queen Operators' Association, et al., in connection with *Dairy Queen Operators' Association, et al. v. International Dairy Queen, Inc. et al.*, March 19, 2008.

Expert report on behalf of Plaintiffs Dairy Queen Operators' Association, et al., in connection with *Dairy Queen Operators' Association, et al. v. International Dairy Queen, Inc. et al.*, March 14, 2008.

***Pedinol Pharmacal, Inc. v. Rising Pharmaceuticals, Inc., and Ronald Gold***

Trial testimony on behalf of Defendant Ronald Gold in connection with *Pedinol Pharmacal, Inc. v. Rising Pharmaceuticals, Inc., and Ronald Gold*, February 6, 2008.

Deposition testimony on behalf of Defendant Ronald Gold in connection with *Pedinol Pharmacal, Inc. v. Rising Pharmaceuticals, Inc., and Ronald Gold*, January 25, 2008.

Expert report on behalf of Defendant Ronald Gold in connection with *Pedinol Pharmacal, Inc. v. Rising Pharmaceuticals, Inc., and Ronald Gold*, January 18, 2008.

***HCI Technologies, Inc. v. Avaya, Inc.***

Testimony on behalf of Plaintiff HCI Technologies, Inc. in the arbitration hearing in connection with *HCI Technologies, Inc. v. Avaya, Inc.*, October 15, 2007.

Expert report on behalf of Plaintiff HCI Technologies, Inc. in connection with *HCI Technologies, Inc. v. Avaya, Inc.*, May 31, 2007.

***AVX Corporation and AVX Limited v. Cabot Corporation***

Declaration in Support of Plaintiffs AVX Corporation and AVX Limited's Motion to Compel Discovery in connection with *AVX Corporation and AVX Limited v. Cabot Corporation*, September 19, 2007.

Declaration in Support of Plaintiffs AVX Corporation and AVX Limited's Motion to Compel Discovery in connection with *AVX Corporation and AVX Limited v. Cabot Corporation*, March 1, 2007.

Lauren J. Stiroh

***Floorgraphics, Inc. v. News America Marketing In-store Services, Inc., et al.***

Declaration in Support of Defendants Motion for Summary Judgment in connection with *Floorgraphics, Inc. v. News America Marketing In-Store Services, Inc. and News America Marketing In-Store, Inc.*, September 19, 2007.

Deposition testimony on behalf of Defendants News America Marketing In-store Services, Inc., et al. in connection with *Floorgraphics, Inc. v. News America Marketing In-store Services, Inc. et. al.*, August 16, 2007.

Expert report on behalf of Defendants News America Marketing In-store Services, Inc., et al. in connection with *Floorgraphics, Inc. v. News America Marketing In-store Services, Inc. et. al.*, July 13, 2007.

***Kentucky Speedway, LLC. v. National Association Of Stock Car Auto Racing, Inc., AKA NASCAR and International Speedway Corporation***

Deposition testimony on behalf of Defendants National Association Of Stock Car Auto Racing, Inc., and International Speedway Corporation in connection with *Kentucky Speedway, LLC. v. National Association Of Stock Car Auto Racing, Inc., and International Speedway Corporation*, June 19-20, 2007.

Expert report on behalf of Defendants National Association Of Stock Car Auto Racing, Inc., and International Speedway Corporation in connection with *Kentucky Speedway, LLC. v. National Association Of Stock Car Auto Racing, Inc., and International Speedway Corporation*, May 25, 2007.

***Amgen, Inc. v. F. Hoffmann-LaRoche, Ltd., et al.***

Deposition testimony on behalf of counter-claim Plaintiffs F. Hoffmann-LaRoche, Ltd. et al. in connection with *Amgen, Inc. v. F. Hoffmann-LaRoche, Ltd., et al.*, May 31, 2007.

Expert report on behalf of counter-claim Plaintiffs F. Hoffmann-LaRoche, Ltd. et al. in connection with *Amgen, Inc. v. F. Hoffmann-LaRoche, Ltd., et al.*, April 6, 2007.

***adidas America, Inc. and adidas-Salomon AG v. Kmart Corporation and Footstar, Inc.***

Deposition testimony on behalf of Defendants Kmart Corporation and Footstar, Inc. in connection with *adidas America, Inc. and adidas-Salomon AG v. Kmart Corporation and Footstar, Inc.*, March 21, 2007.

Expert report on behalf of Defendants Kmart Corporation and Footstar, Inc. in connection with *adidas America, Inc. and adidas-Salomon AG v. Kmart Corporation and Footstar, Inc.*, January 5, 2007.

Lauren J. Stiroh

***Peter Wachtell v. Capital One Financial Corporation***

Deposition testimony on behalf of Defendants Capital One Financial Corp. in connection with *Peter Wachtell v. Capital One Financial Corp.*, March 15, 2007.

Expert report on behalf of Defendants Capital One Financial Corp. in connection with *Peter Wachtell v. Capital One Financial Corp.*, January 12, 2007.

***William J. LaPoint and John M. Nehra et al. v. AmerisourceBergen Corporation***

Deposition testimony on behalf of Plaintiffs in connection with *William J. LaPoint and John M. Nehra et al. v. AmerisourceBergen Corporation*, January 16-17, 2007.

Expert report on behalf of Plaintiffs William J. LaPoint and John M. Nehra, et. al. in connection with *William J. LaPoint and John M. Nehra et al. v. AmerisourceBergen Corporation*, November 22, 2006.

***Re Sulfuric Acid Antitrust Litigation***

Deposition testimony on behalf of Defendants in connection with *Re Sulfuric Acid Antitrust Litigation*, February 22-23, 2006.

Expert report on behalf of Defendants in connection with *Re Sulfuric Acid Antitrust Litigation*, February 3, 2006.

Deposition testimony on behalf of Defendants in connection with *Re Sulfuric Acid Antitrust Litigation*, January 16, 2004.

Expert report on behalf of Defendants in connection with *Re Sulfuric Acid Antitrust Litigation*, December 16, 2003.

***United Asset Coverage, Inc. v. Avaya, Inc.***

Trial testimony on behalf of Plaintiff United Asset Coverage, Inc. at the Preliminary Injunction Hearing in connection with *United Asset Coverage, Inc. v. Avaya, Inc.*, Northern District of Illinois, October 28, 2005 and November 7, 2005.

Expert report on behalf of Plaintiff in connection with *United Asset Coverage, Inc. v. Avaya, Inc.*, October 12, 2005.

***Orbit Irrigation Products, Inc. v. L. R. Nelson Corporation***

Deposition testimony on behalf of Defendant L.R. Nelson Corporation, Inc. in connection with *Orbit Irrigation Products, Inc. v. L. R. Nelson Corporation*, September 15, 2005.



Lauren J. Stiroh

Deposition testimony on behalf of Defendant L. R. Nelson Corporation, Inc. in connection with *Orbit Irrigation Products, Inc. v. L. R. Nelson Corporation*, May 7, 2003.

Rebuttal report on behalf of Defendant in connection with *Orbit Irrigation Products, Inc. v. L.R. Nelson Corporation*, February 6, 2003.

Expert report on behalf of Defendant in connection with *Orbit Irrigation Products, Inc. v. L.R. Nelson Corporation*, January 15, 2003.

***Theme Promotions, Inc. v. News America FSI, Inc.***

Trial testimony on behalf of Defendant News America FSI, Inc. in connection with *Theme Promotions, Inc. v. News America FSI, Inc.*, United States District Court in the Northern District of California, August 24-25, 2005.

Deposition testimony on behalf of Defendant News America FSI, Inc. in connection with *Theme Promotions, Inc. v. News America FSI, Inc.*, July 20, 2005.

Declaration in Support of Defendant News America FSI, Inc.'s, Motion for Summary Judgment in connection with *Theme Promotions, Inc. v. News America FSI, Inc.*, July 22, 2005.

Rebuttal report on behalf of Defendant News America FSI, Inc. in connection with *Theme Promotions, Inc. v. News America FSI, Inc.*, June 9, 2005.

***Metropolitan Inter-Collegiate Basketball Association v. National Collegiate Athletic Association, et al.***

Deposition testimony on behalf of Defendants National Collegiate Athletic Association, et al., in connection with *Metropolitan Inter-Collegiate Basketball Association v. National Collegiate Athletic Association, et al.*, June 14, 2005.

Expert report on behalf of Defendants National Collegiate Athletic Association, et al., in connection with *Metropolitan Inter-Collegiate Basketball Association v. National Collegiate Athletic Association, et al.*, June 12, 2005.

***BTG International Limited v. Zimmer Holdings, Inc. et al.***

Rebuttal report on behalf of Plaintiff BTG International Limited in connection with *BTG International Limited v. Zimmer Holdings, Inc. et al.*, March 29, 2005.

Expert report on behalf of Plaintiff BTG International Limited in connection with *BTG International Limited v. Zimmer Holdings, Inc. et al.*, March 7, 2005.

Lauren J. Stiroh

***International Truck and Engine Corporation vs. Caterpillar Inc.***

Expert report on behalf of Plaintiff International Truck and Engine Corporation in connection with *International Truck and Engine Corporation vs. Caterpillar Inc.*, February 18, 2005.

***Piatti Restaurant Company v. Steiner Corporation et. al.***

Expert report on behalf of Defendant Steiner Corporation in connection with *Piatti Restaurant Company v. Steiner Corporation et. al.*, February 14, 2005.

***Kevin T. Keleghan v. Sears, Roebuck & Company and Alan J. Lacy***

Deposition testimony on behalf of Defendants Sears, Roebuck & Company and Alan J. Lacy, in connection with *Kevin T. Keleghan v. Sears, Roebuck & Company and Alan J. Lacy*, November 5, 2004.

***U.S. Philips Corporation v. Princo Corporation and Princo America Corporation and Gigastorage Corporation and Gigastorage U.S.A. v. U.S. Philips Corporation and Koninklijke Philips Electronic N.V.***

Deposition testimony on behalf of Plaintiff U.S. Philips Corporation, in connection with *U.S. Philips Corporation v. Princo Corporation and Princo America Corporation and Gigastorage Corporation and Gigastorage U.S.A. v. U.S. Philips Corporation and Koninklijke Philips Electronic N.V.*, September 28, 2004.

Rebuttal report on behalf of Plaintiff U.S. Philips Corporation, in connection with *U.S. Philips Corporation v. Princo Corporation and Princo America Corporation, and Gigastorage Corporation and Gigastorage U.S.A. v. U.S. Philips Corporation and Koninklijke Philips Electronic N.V.*, September 14, 2004.

***The Proctor & Gamble Company v. The Coca-Cola Company***

Deposition testimony on behalf of Defendant The Coca-Cola Company in connection with *The Proctor & Gamble Company v. The Coca-Cola Company*, August 31, 2004.

Expert report on behalf of Defendant The Coca-Cola Company in connection with *The Proctor & Gamble Company v. The Coca-Cola Company*, July 12, 2004.

***Auscape International, et al., v. National Geographic Society***

Rebuttal report on behalf of Defendant National Geographic Society in connection with *Auscape International, et al., v. National Geographic Society, et al.*, July 15, 2003.

Deposition testimony on behalf of Defendant National Geographic Society in connection with *Auscape International, et al., v. National Geographic Society, et al.*, May 29, 2003.

Lauren J. Stiroh

Expert report on behalf of Defendant National Geographic Society in connection with *Auscape International, et al., v. National Geographic Society, et al.*, April 2, 2003.

***Astor Holdings Inc. et al. v. Edward "Trey" Roski, III and BattleBots, Inc.***

Deposition testimony on behalf of Defendant Battlebots, Inc. in connection with *Astor Holdings Inc. et al. v. Edward "Trey" Roski, III and BattleBots, Inc.*, October 2, 2002.

Expert reports in connection with *Astor Holdings Inc. et al. v. Edward "Trey" Roski, III and BattleBots, Inc.*, May 2002 and June 2002.

***Menasha Corporation v. News America Marketing In-Store, Inc***

Deposition testimony on behalf of Defendant News America Marketing In-Store, Inc. in connection with *Menasha Corporation v. News America Marketing In-Store, Inc.*, August 13 and 14, 2002.

Rebuttal report on behalf of Defendant News America Marketing In-Store, Inc. in connection with *Menasha Corporation v. News America Marketing In-Store, Inc.*, October 2001 (with Richard T. Rapp).

Expert report on behalf of Defendant News America Marketing In-Store, Inc. in connection with *Menasha Corporation v. News America Marketing In-Store, Inc.*, August 2, 2001 (with Richard T. Rapp).

***Joint Hearings of the US DOJ and FTC***

Written submission "Standard Setting and Market Power," to the Joint Hearings of the United States Department of Justice and the Federal Trade Commission on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy," Washington, D.C., April 18, 2002 (with Richard T. Rapp).

***Rambus, Inc.***

Report in connection with *Rambus, Inc.*, "Supplemental Economic Considerations Bearing on FTC Enforcement," April 12, 2002 (with Richard T. Rapp).

***Medtronic Ave, Inc. v. Boston Scientific Corporation Scimed Life Systems, Inc., & Boston Scientific Scimed, Inc.***

Expert report on behalf of Plaintiff in connection with *Medtronic Ave, Inc. v. Boston Scientific Corporation Scimed Life Systems, Inc., & Boston Scientific Scimed, Inc.*, March 8, 2001.

Lauren J. Stiroh

***Michael B. Sherman v. Master Protection Corporation***

Declaration in Support of Defendants Motion for Summary Judgment in connection with *Michael B. Sherman v. Master Protection Corporation*, June 2, 2000.

***Hugh Collins et al. v. International Dairy Queen, Inc.***

Deposition testimony on behalf of Plaintiffs Hugh Collins, et al. in connection with *Hugh Collins et al. v. International Dairy Queen, Inc.*, December 29 and 30, 1999.

Supplemental Expert Report on behalf of Plaintiffs Hugh Collins, et al. in connection with *Hugh Collins et al. v. International Dairy Queen, Inc.*, December 17, 1999 (with Richard T. Rapp).

Expert Report on behalf of Plaintiffs Hugh Collins, et al. in connection with *Hugh Collins et al. v. International Dairy Queen, Inc.*, October 29, 1999 (with Richard T. Rapp).

***Halfond et al. v. The Legal Aid Society of the City of New York***

Trial testimony on behalf of Defendant The Legal Aid Society of the City of New York in connection with *Halfond et al. v. The Legal Aid Society of the City of New York*. United States District Court in the Eastern District of New York, September 1999.

Deposition testimony on behalf of Defendant The Legal Aid Society of the City of New York in connection with *Halfond et al. v. The Legal Aid Society of the City of New York*. United States District Court in the Eastern District of New York, July 1999.

Supplemental Report on Damages on behalf of Defendant The Legal Aid Society of the City of New York in connection with *Halfond et al. v. The Legal Aid Society of the City of New York*, May 14, 1999.

Expert Report on behalf of Defendant The Legal Aid Society of the City of New York in connection with *Halfond et al. v. The Legal Aid Society of the City of New York*, May 4, 1999.

***Directory Consultants, v. GTE Directories Corporation***

Deposition testimony on behalf of Defendant GTE Directories Corporation in connection with *Directory Consultants, v. GTE Directories Corporation*, November 11, 1997.

**Selected Consulting Assignments**

- Consultant to counsel on economic issues relating to class certification in the textile rental industry.

Lauren J. Stiroh

- Consultant to counsel on economic issues related to class certification in the airline industry.
- Analyses of competition in export markets for Soda Ash.
- Evaluated competitive effects of a proposed acquisition in the steel industry.
- Consultant to counsel on matters relating to market power, patent valuation and standard setting in the DRAM industry.
- Consultant to counsel on matters relating to class certification in the pharmaceutical industry.
- Consultant to counsel regarding breach of contract claims in the movie exhibition industry.
- Assisted counsel in assessing compliance with a settlement agreement in the contact lens industry.
- Evaluated competitive effects of an acquisition in the movie theatre industry.
- Statistical analysis evaluating claims of price fixing in the carbon brush industry.
- Evaluated Plaintiff's damage claim involving products related to disaster recovery systems.
- Evaluation of a reasonable royalty for a patent related to magnetic recording media.
- Evaluation of damage claims arising from differential pricing in the book publishing industry.
- Competitive analysis of a merger in the book publishing industry.
- Evaluation of damage claims arising from failure to promote particular brands of non-selective herbicides.
- Evaluation of damage claims in connection with an allegation of false advertising in the powered toothbrush industry.
- Consultant to counsel for an Internet service provider regarding trademark infringement claims.
- Consultant to counsel in connection with evaluation of competitive effects of promotion and incentive programs in the marine engine industry.
- Evaluation of reasonable royalties for patents used in the manufacture of semiconductors.
- Evaluation of business interference claims in the yellow pages advertising industry.
- Evaluation of a model forecasting the value of commercial real estate in Connecticut.
- Analysis of predatory pricing claims as well as a competitive analysis of the market for bicycle components.



Lauren J. Stiroh

- Estimation of damages resulting from patent infringement in the recreational vehicle industry.
- Estimation of damages resulting from false advertising in the long distance telephone industry.
- Competitive analysis of the impact of a merger in the skiing industry. Predicted the price effects of the merger.
- Competitive Analysis of Vertical Restraints in the Yellow Pages Industry. Estimated damages resulting from the vertical restraints.

## **Presentations**

Panelist, "Antitrust Economics for Attorneys: The Economics of Innovation and Intellectual Property," presented by *The Economics and Intellectual Property Committees of the American Bar Association's Section of Antitrust Law*, Washington, D.C., July 23, 2008.

Panelist, "Comparables: The Use and Misuse of Benchmark Royalty Rates for Patent Damages," Intellectual Property Seminar Series, NERA Economic Consulting, New York, NY, January 2007.

Panelist, "Illinois Tool Works and Tying: Impact and Implications," ABA-CLE Teleconference, May 19, 2006.

Panelist, "Antitrust Mock Trial," *presented by The Trial Practice Committee*, American Bar Association Annual Spring Meeting, Washington, D.C., March 30, 2006.

Speech, "Standard Setting, Network Effects and Market Power," presented at Law Seminars International's Conference, Atlanta, Georgia, October 8, 2004.

Speech, "The Relevant Market in Intellectual Property/Antitrust Litigation," presented at the Practising Law Institute, June 2004, June 2002 and June 2001.

Speech "The Economics of Damages in Intellectual Property Litigation," presented at Law Seminars International's workshop, Calculating and Proving Patent Damages, Stamford, Connecticut, May 14, 2004.

Panelist, "Show Me the Money: How to Make Damages Testimony Come Alive," American Bar Association Annual Meeting, Washington, D.C., August 9, 2002.

Panelist, "Unreasonable Royalties," Intellectual Property Seminar Series, National Economic Research Associates, New York, New York, June 2002.



Lauren J. Stiroh

Panel participant on "Licensing Terms in Standards Activities" before the Joint Hearings of the United States Department of Justice and the Federal Trade Commission on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy," Washington, D.C., April 18, 2002.

Panelist, "The Implications of Standards Setting for Patent Value and Use," Intellectual Property Seminar Series, National Economic Research Associates, New York, New York, May 2001, and Washington, DC, October 2001.

Faculty member, Econometrics for Litigators, Continuing Legal Education, hosted by NERA, New York, NY, April 2001.

Speech, "Intellectual Property Valuations: Quantitative Methods," presented at the Intellectual Property Management for Corporate Counsel seminar, February 11, 1999.

Panelist, "What Do Option and Stock Market Values Have To Do With Intellectual Property Litigation?" Intellectual Property Seminar Series, National Economic Research Associates, New York, New York, November 1998.

Speech, "Innovations Markets," before the New York County Lawyers Association Trade Regulation Committee, February 11, 1998.

## **Publications**

"FTC Requires Patentee to Fulfill Licensing Commitments To A Standard-Setting Organization To Prevent Consumer Harm" co-authored with Eugene L. Chang, Esq., William H. Rooney, Esq. and Heather M. Schneider, Esq., Willkie Farr & Gallagher, LLP, *The Metropolitan Corporate Counsel*, 2008.

Chapter 14: "Proving Causation in Damage Analyses" in Economics of Antitrust, Complex Issues in a Dynamic Economy, edited by Dr. Lawrence Wu, NERA Economic Consulting, 2007.

Co-editor, Economic Approaches to Intellectual Property Policy, Litigation, and Management. Edited by Dr. Gregory K. Leonard and Dr. Lauren J. Stiroh, NERA Economic Consulting, September 2005.

Chapter 1: "Uncertainty in the Economics of Knowledge and Information" in Economic Approaches to Intellectual Property Policy, Litigation, and Management, edited by Dr. Gregory K. Leonard and Dr. Lauren J. Stiroh, NERA Economic Consulting, 2005.

Chapter 3: "A Practical Guide to Damages" co-authored with Dr. Gregory K. Leonard, in Economic Approaches to Intellectual Property Policy, Litigation, and Management, edited by Dr. Gregory K. Leonard and Dr. Lauren J. Stiroh, NERA Economic Consulting, 2005.

Lauren J. Stiroh

Chapter 15: "Standard Setting and Market Power" co-authored with Dr. Richard T. Rapp in Economic Approaches to Intellectual Property Policy, Litigation, and Management, edited by Dr. Gregory K. Leonard and Dr. Lauren J. Stiroh, NERA Economic Consulting, 2005.

"The Relevant Market in Intellectual Property/Antitrust Litigation" co-authored with Alyssa A. Lutz, Ph.D., *Intellectual Property Antitrust*, Practising Law Institute, 2001 and 2002.

"Modern Methods for the Valuation of Intellectual Property," co-authored with Richard T. Rapp, *Protecting Your Intellectual Property Assets*, Practising Law Institute, 1998.

"Returns to Education, Human Capital and Income Inequality in Colombia," Ph.D. Thesis, Harvard University, August 1996.

June 2009

Exhibit 5

**Distribution of Non-Adjusted Dry Sales to Wholesalers  
By Percentage of Prevailing WAC  
1992 to 2006**

Price Per Unit as a Percentage of Prevailing WAC		First DataBank (1970Q1 - 2004Q4)				First DataBank Adjusted (1992Q1 - 2004Q4) <sup>1</sup>				Medspan (1996Q3 - 2006Q4)				Red Book (1995Q2 - 2006Q3)			
Greater Than	Less Than	Sales (\$)	Percent of Sales	Cumulative Percent of Sales		Sales (\$)	Percent of Sales	Cumulative Percent of Sales		Sales (\$)	Percent of Sales	Cumulative Percent of Sales		Sales (\$)	Percent of Sales	Cumulative Percent of Sales	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
WAC equal to WAC		\$ 1,488,366	0.11 %	81.34		\$ 1,488,366	0.12 %	0.12 %		\$ 1,801,010	0.14 %	0.14 %		\$ 814,177	0.07 %	0.07 %	
95		1,432,219,514	81.23	81.34		1,432,219,514	91.50	91.62		1,189,478,879	94.99	95.14		1,104,605,000	89.30	89.36	
90		2,153,962	0.15	81.49		2,153,962	0.17	91.79		2,027,975	0.16	95.38		1,956,549	0.16	89.52	
85		20,614,602	1.48	82.97		20,614,602	1.67	93.46		9,715,797	0.78	96.07		35,250,667	2.86	92.38	
80		38,438,886	2.76	85.73		38,438,886	3.11	96.57		3,093,041	0.02	96.10		35,370,463	2.87	95.24	
75		16,374,165	1.17	86.91		16,374,165	1.32	97.89		8,993,009	0.72	96.82		9,531,871	0.77	96.02	
0		6,345,700	0.46	87.36		6,345,700	0.51	98.40		25,398,821	2.03	98.84		36,995,186	3.00	99.02	
		176,155,674	12.64	100.00		19,761,038	1.60	100.00		14,473,293	1.16	100.00		12,139,515	0.98	100.00	
		\$ 1,393,800,869	100.00 %			\$ 1,237,396,833	100.00 %			\$ 1,252,198,425	100.00 %			\$ 1,233,683,428	100.00 %		

Notes:

Sales include direct regular shipments to wholesalers.

Prices per unit are calculated by dividing revenue by shelf cartons for each invoice number, NDC, and billing customer number.

Prices per unit are compared to the prevailing WAC as available in the various compendia. The analysis includes sales through the last quarter in which a WAC posting was made for each compendia.

This study includes records for which there is: (1) a nonpositive or missing price per unit and a non-negative revenue; (2) a nonpositive revenue; or (3) no available WAC data.

First DataBank does not include WAC postings for the following NDCs: 4950208526, 4950208538, 4950208551, 4950208562, and 49502069730. Red Book does not include WAC postings for the following NDCs: 49502019620, 4950203017, and 49502030327.

<sup>1</sup> These columns exclude the sales made for NDCs 49502069703, 49502069733, and 49502069760 during the period 1995Q3 to 1997Q4 for which FDA reports a WAC increase not reported in other compendia.

Sources:

First DataBank data,  
Medspan data,  
Red Book data,  
Dry wholesaler activity data.

NEBA Economic Consulting

Exhibit 6

**Distribution of Adjusted Dry Sales to Wholesalers  
By Percentage of Prevailing WAC  
1992 to 2006**

Adjusted Price Per Unit as a Percentage of Prevailing WAC		First DataBank (1992Q1 - 2004Q4)				Medispas (1996Q1 - 2004Q4)				Red Book (1995Q1 - 2006Q2)			
		Sales (Dollars)	Percent of Sales (c)/(e)*100	Cumulative Percent of Sales (Percent)	Percent of Sales (c)/(e)*100	Sales (Dollars)	Percent of Sales (f)/(g)*100	Cumulative Percent of Sales (Percent)	Percent of Sales (f)/(g)*100	Sales (Dollars)	Percent of Sales (h)/(i)*100	Cumulative Percent of Sales (Percent)	Percent of Sales (h)/(i)*100
Greater Than	or Equal To	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
WAC		\$ 15,912,569	3.15 %	3.15 %	\$ 15,912,569	3.41 %	3.41 %	\$ 15,891,148	3.69 %	\$ 16,317,581	3.85 %	3.85 %	3.85 %
95	WAC	341,498,493	67.94	70.69	341,479,330	73.28	76.70	318,855,273	74.12	310,092,627	71.19	77.04	77.04
90	95	39,481,762	7.81	78.50	39,481,742	8.47	85.17	32,365,430	7.52	41,445,958	9.78	86.82	86.82
85	90	33,664,813	6.66	85.16	33,664,813	7.22	92.39	23,673,217	5.50	24,063,762	5.68	92.50	92.50
80	85	6,416,964	1.27	86.43	6,416,964	1.38	93.77	5,217,807	1.21	4,509,936	1.07	93.57	93.57
75	80	8,736,823	1.73	88.15	8,736,823	1.87	95.64	14,072,144	3.27	14,253,981	3.36	96.94	96.94
0	75	59,898,115	11.92	100.00	20,296,389	4.36	100.00	29,127,819	4.68	12,980,219	3.06	100.00	100.00
		\$ 556,609,519	100.00 %		\$ 465,989,130	100.00 %		\$ 430,202,856	100.00 %	\$ 433,704,044	100.00 %		

Notes:

Sales include direct sales to wholesalers and exclude indirect sales for which wholesalers act as intermediaries.

Sales include amounts of adjustments and discounts in the data.

Adjusted prices per unit are calculated by dividing net revenue by shelf cartons for each billing customer number, NDC, and quarter.

Adjusted prices per unit are compared to the prevailing WAC as available in the various compendia. The analysis includes sales through the last quarter to which a WAC posting was made for each compendia.

This analysis includes records for which there is: (1) a nonpositive or missing adjusted price per unit and a non-negative net revenue; (2) a nonpositive net revenue; (3) an unmatched chargeback such that a record in chargeback data does not correspond to a wholesaler record in sales data; or (4) no available WAC data.

First DataBank does not include WAC postings for the following NDCs: 49502068326, 49502068530, 49502068531, 49502068562, and 49502069730. Red Book does not include WAC postings for the following NDCs: 49502019020, 49502019037, and 49502030327.

These columns exclude the sales made for NDCs 49502069733, 49502069733, and 49502069760 during the period 1995Q3 to 1997Q4 for which FDD reports a WAC increase not reported in other compendia.

Sources:

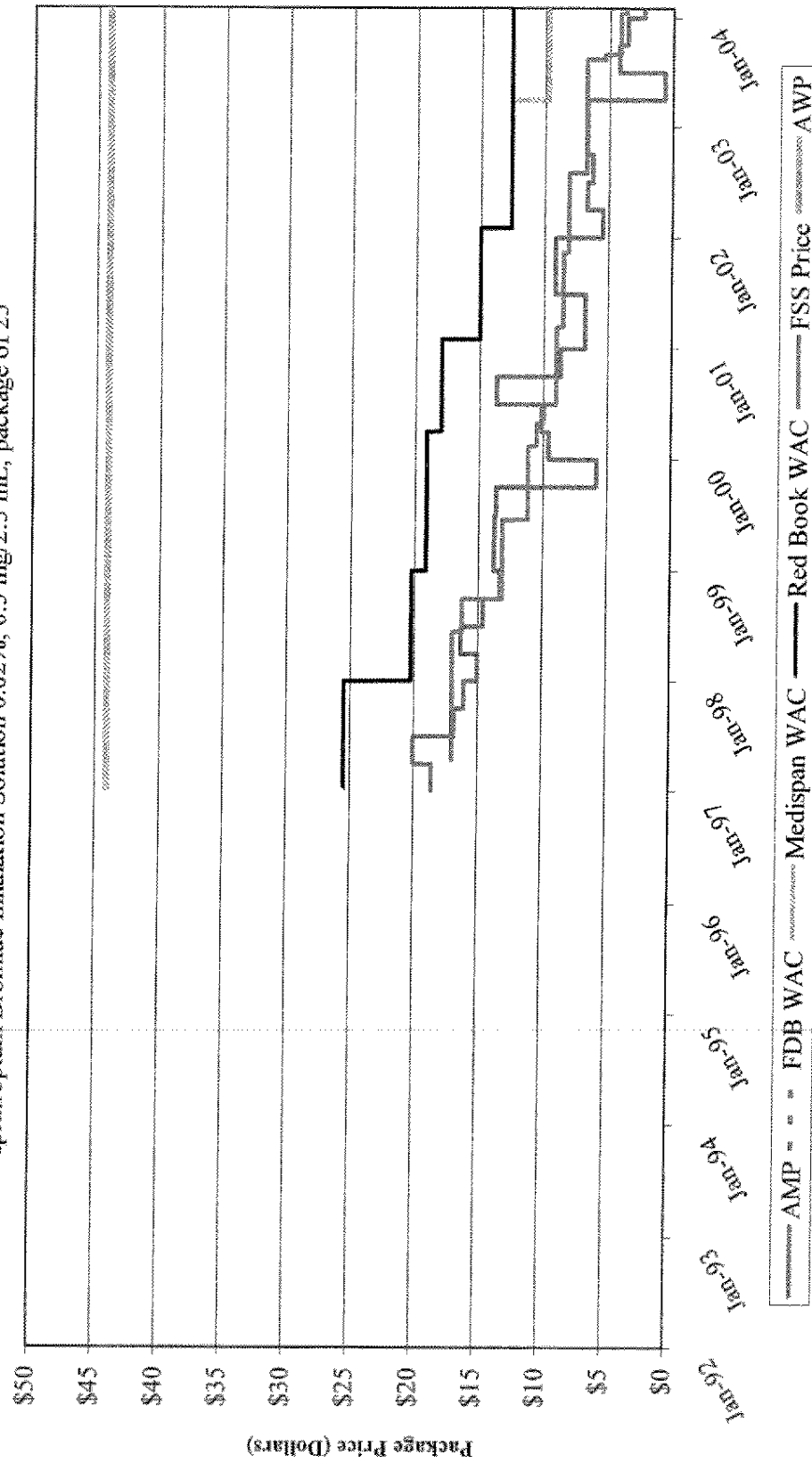
First DataBank data.

Medispas data.

Red Book data.

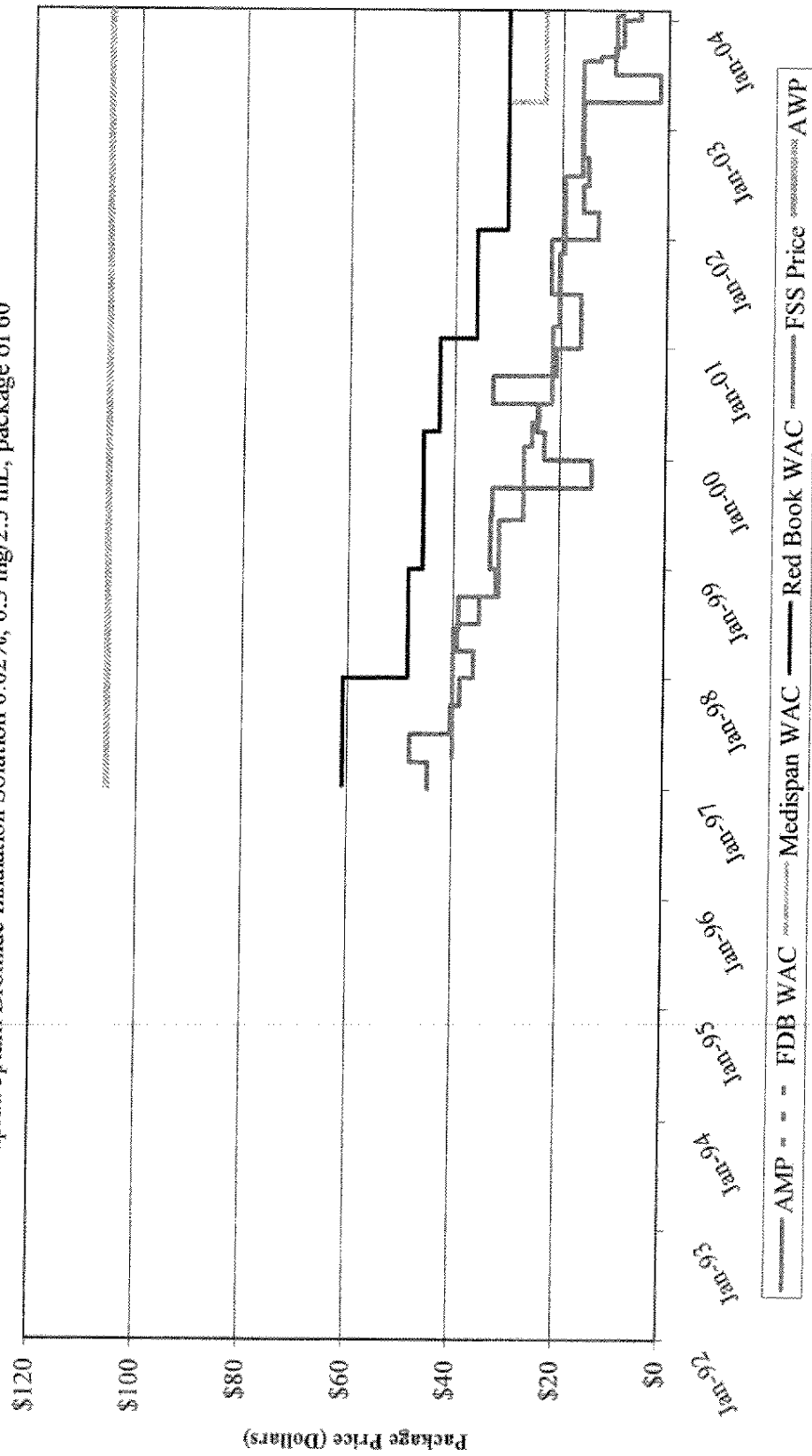
Dry wholesaler activity data and chargeback data.

**Figure A**  
**Comparison of Prices for Dey Products**  
 Ipratropium Bromide Inhalation Solution 0.02%, 0.5 mg/2.5 mL, package of 25



NDCs Included: 49502068503

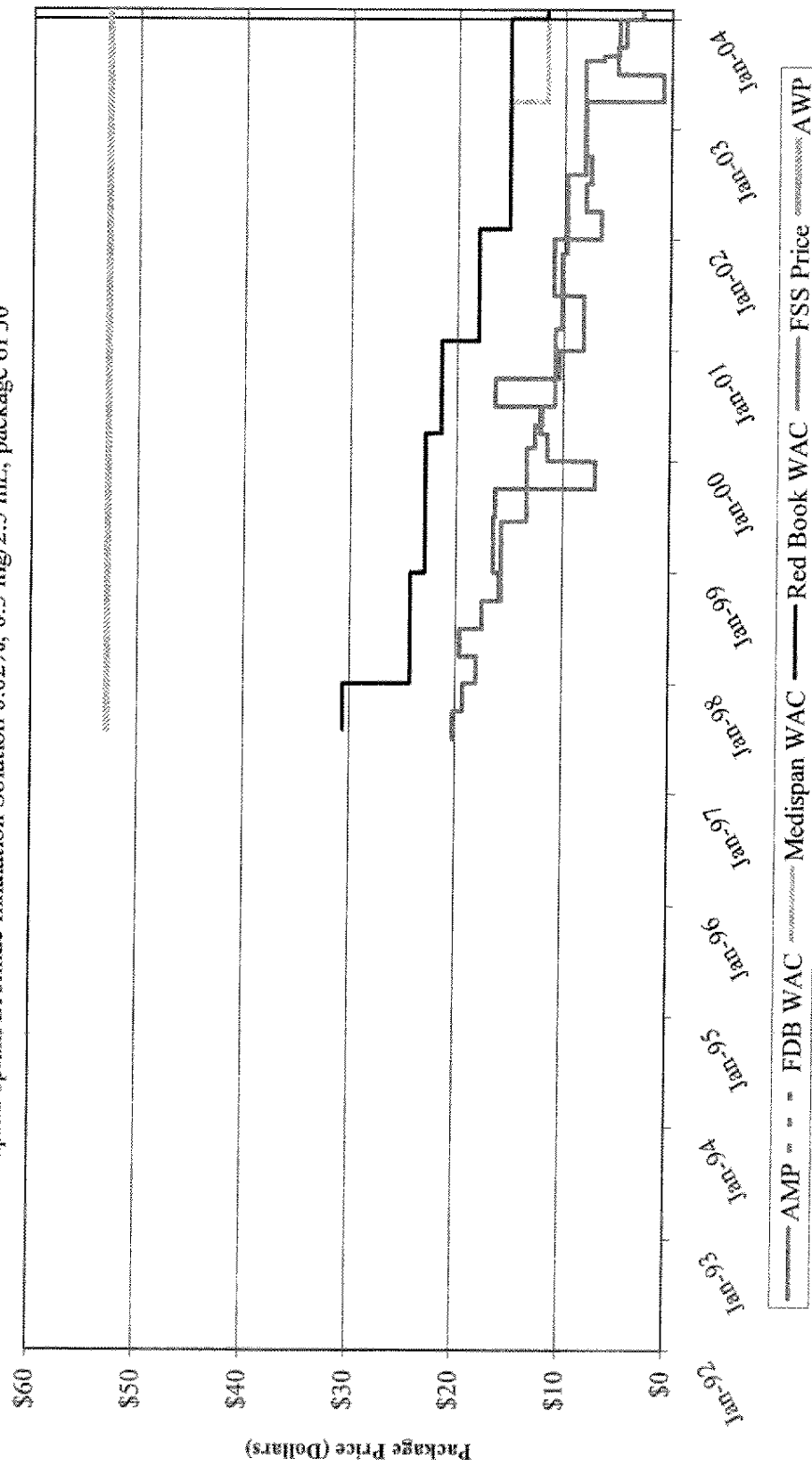
**Figure B**  
**Comparison of Prices for Dey Products**  
 Ipratropium Bromide Inhalation Solution 0.02%, 0.5 mg/2.5 mL, package of 60



NDCs Included: 49502068560

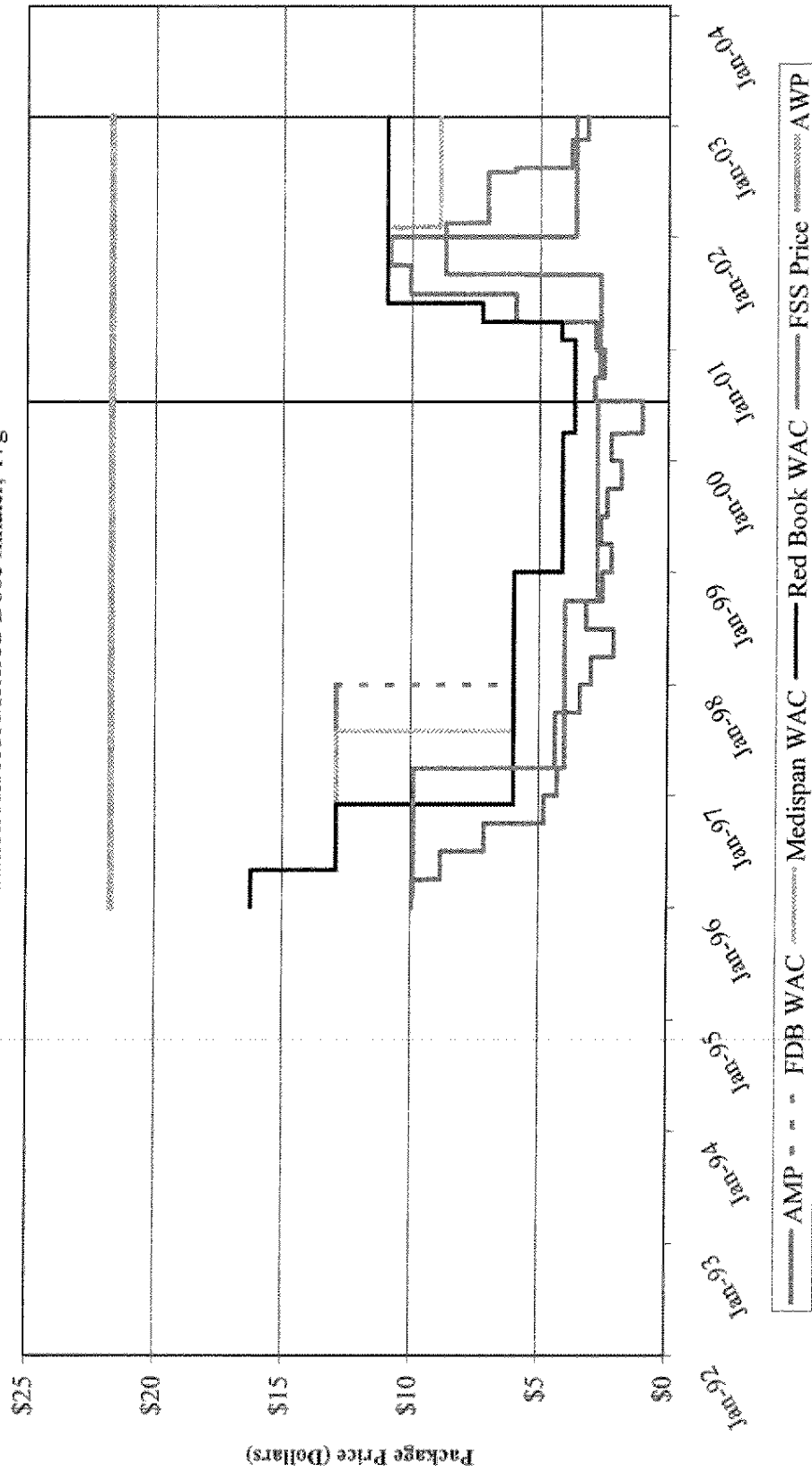


**Figure C**  
**Comparison of Prices for Dey Products**  
 Ipratropium Bromide Inhalation Solution 0.02%, 0.5 mg/2.5 mL, package of 30



NDCs Included: 49502068533 49502068529

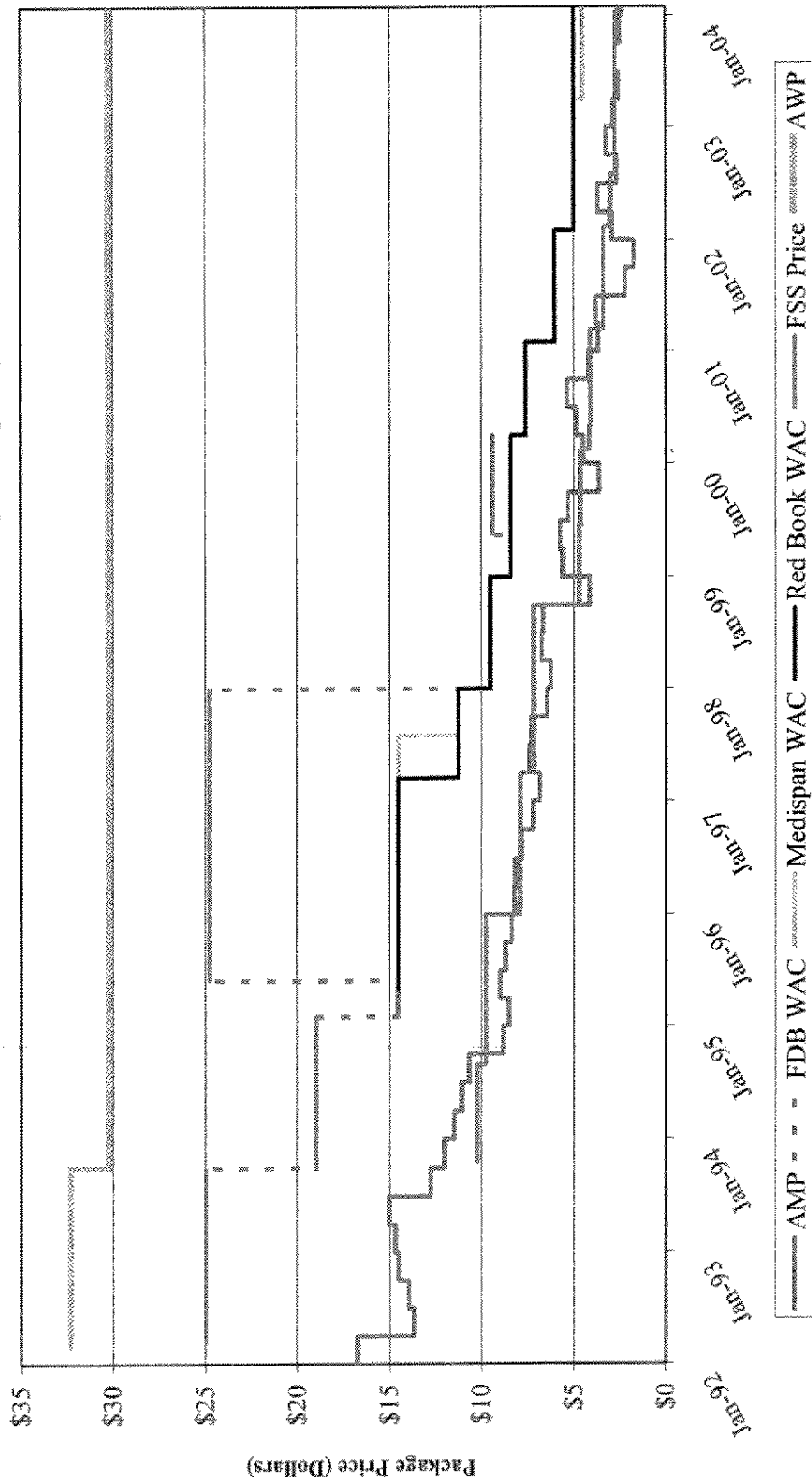
**Figure D**  
**Comparison of Prices for Dey Products**  
 Albuterol Inhalation Aerosol Metered-Dose Inhaler, 17g



NDCs Included: 49502030317 49502033317

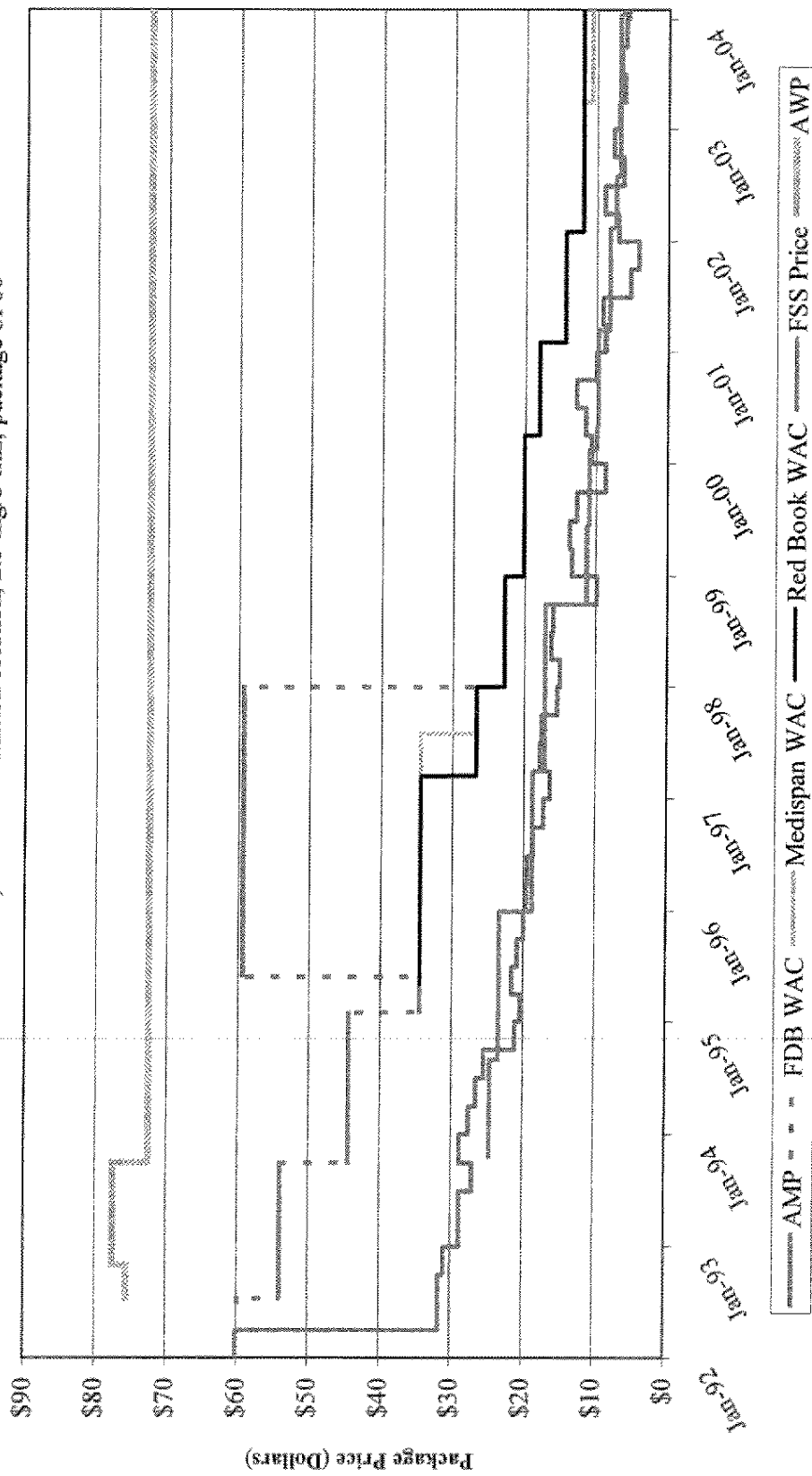
**Figure E**  
**Comparison of Prices for Dey Products**

Albuterol Sulfate Unit Dose, 0.083% inhalation solution, 2.5 mg/3 mL, package of 25



NDCs Included: 49502069703

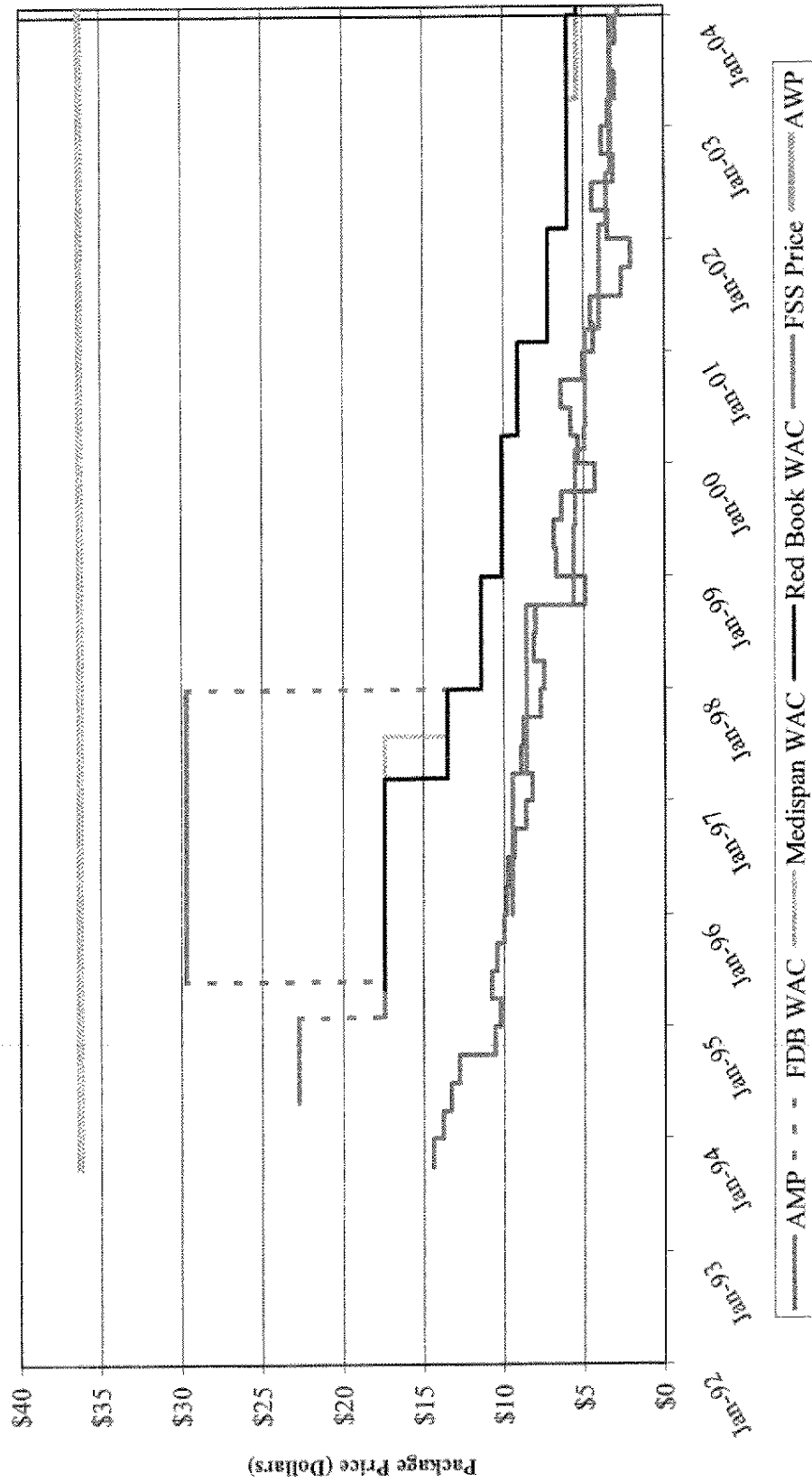
**Figure F**  
**Comparison of Prices for Dey Products**  
 Albuterol Sulfate Unit Dose, 0.083% inhalation solution, 2.5 mg/3 mL, package of 60



NDCs Included: 49502069760

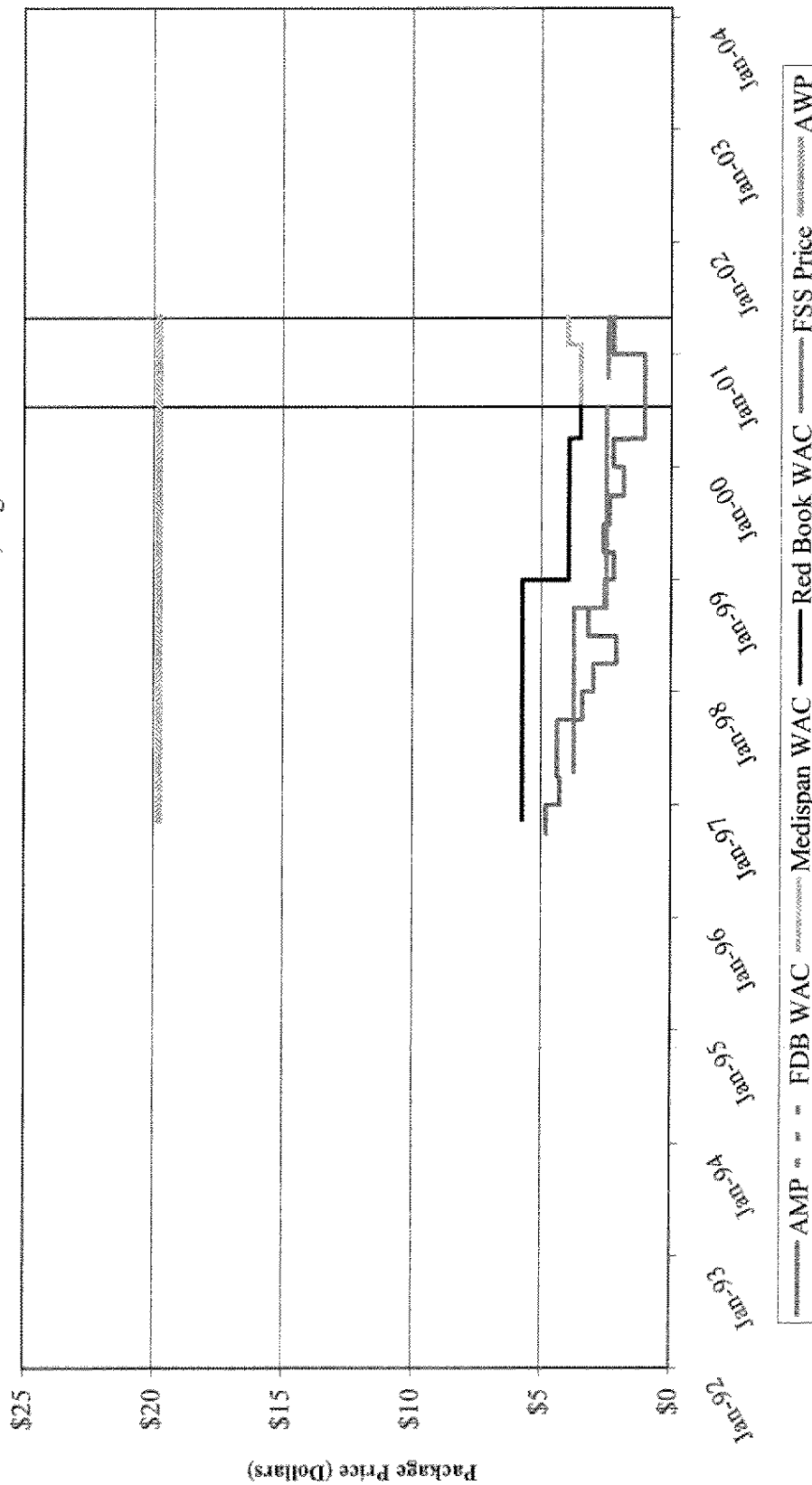
NERA Economic Consulting

**Figure G**  
**Comparison of Prices for Dey Products**  
 Albuterol Sulfate Unit Dose, 0.083% inhalation solution, 2.5 mg/3 mL, package of 30



NDCs Included: 49502069733 49502069729

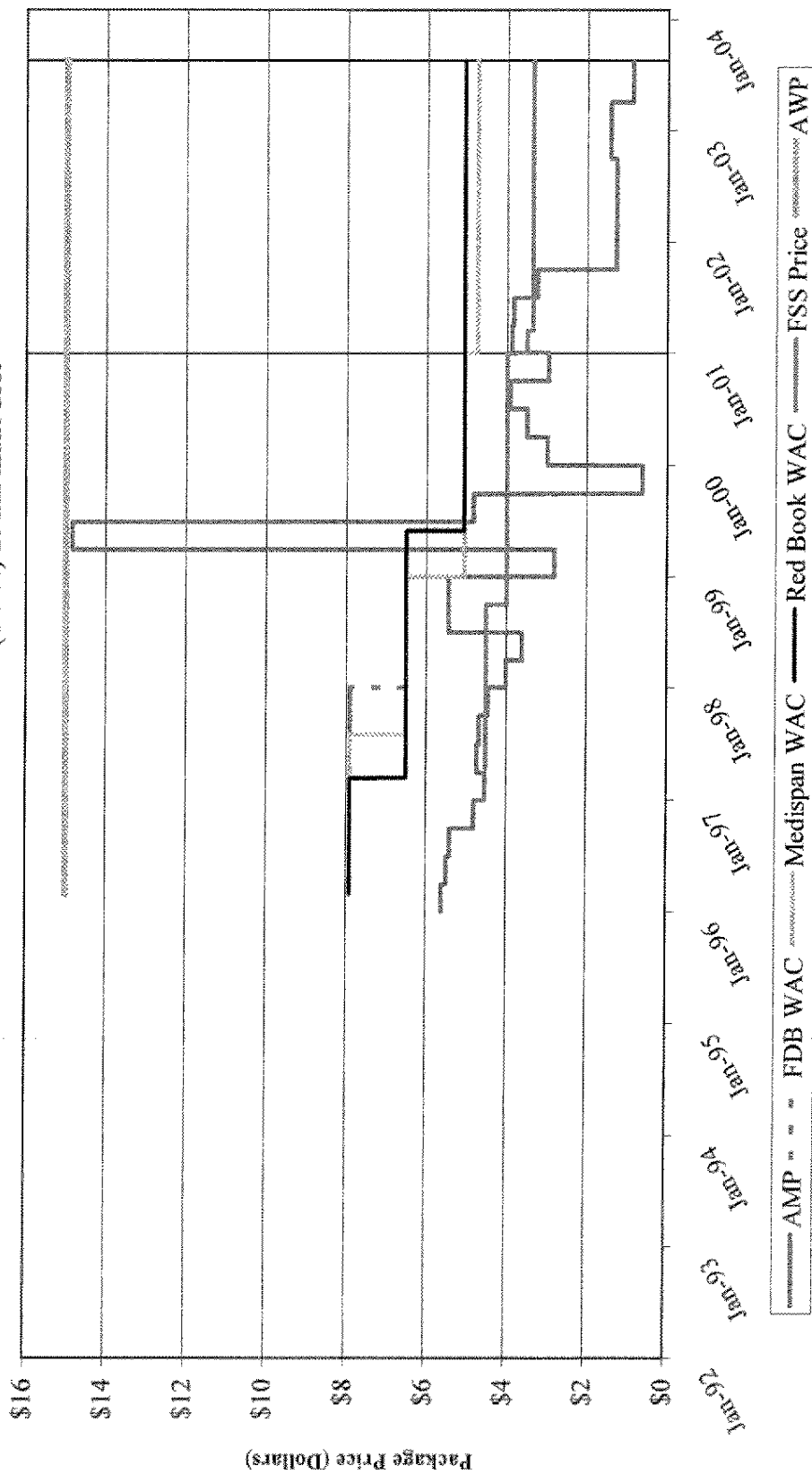
**Figure H**  
**Comparison of Prices for Dey Products**  
 Albuterol Inhalation Aerosol MDI Refill, 17g



NDCs Included: 49502030327 49502033327

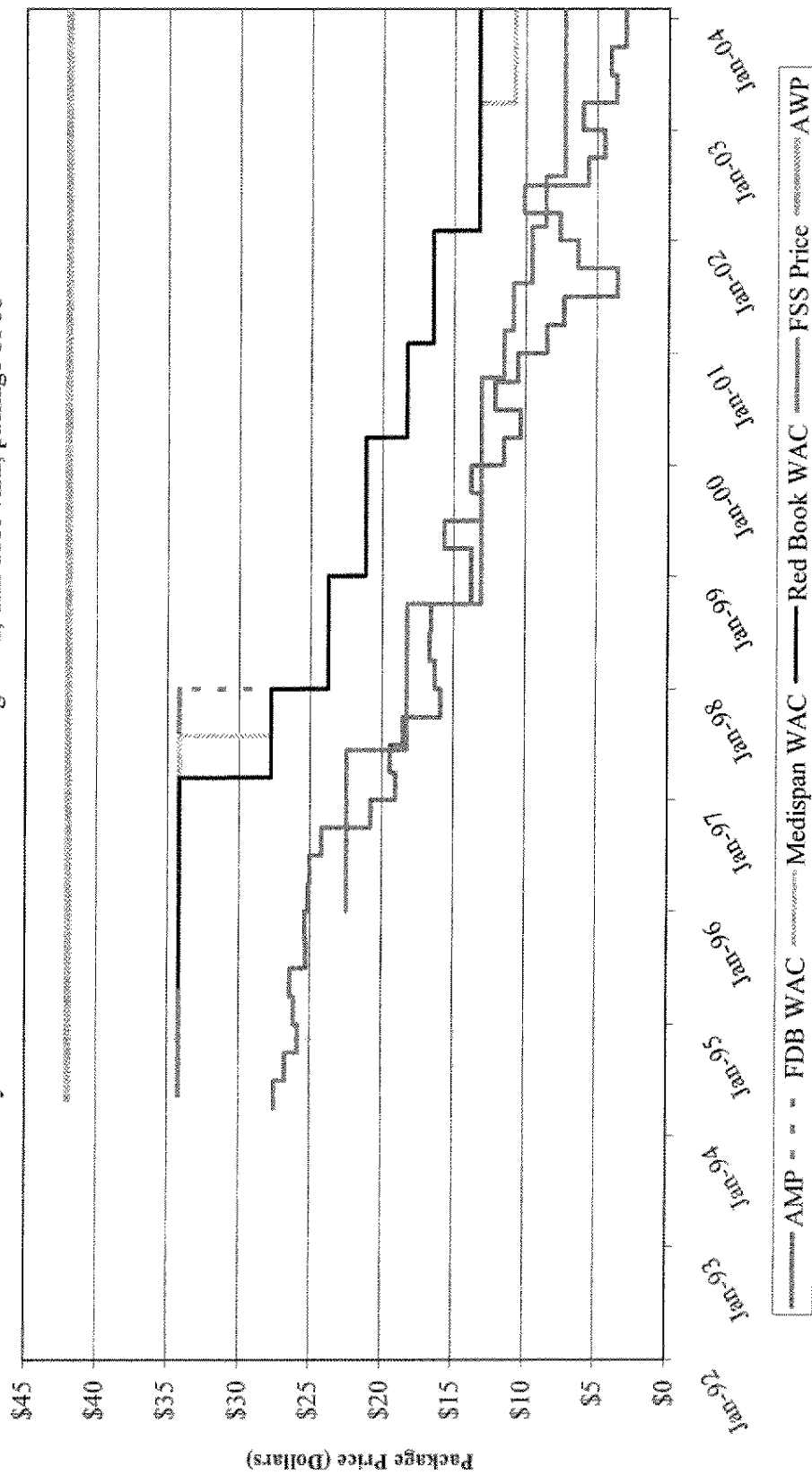


**Figure I**  
**Comparison of Prices for Dey Products**  
 Albuterol Sulfate Inhalation Solution 0.5% (Sterile) 20 mL multi-dose



NDCs Included: 49502019620 49502010501

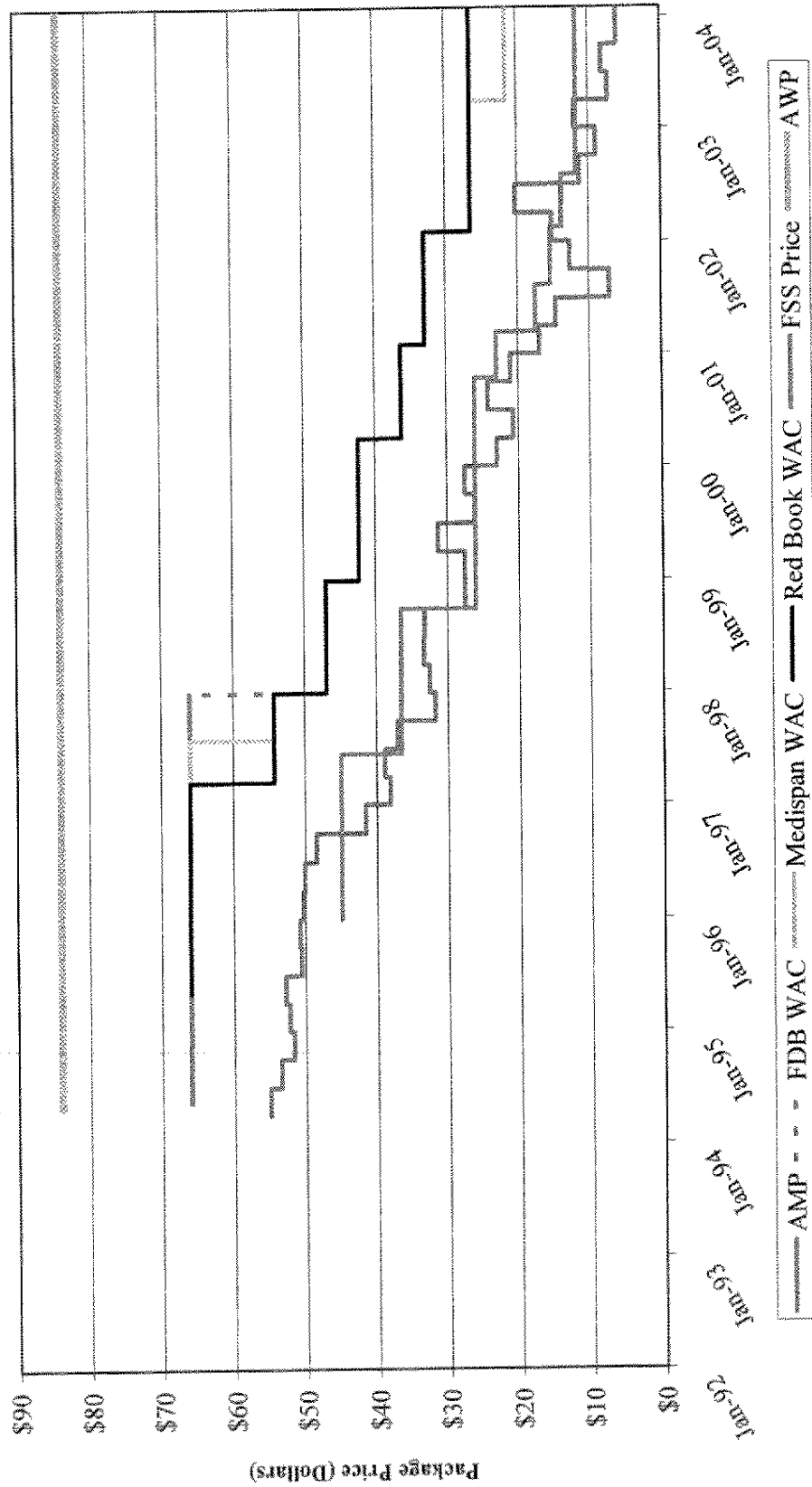
**Figure J**  
**Comparison of Prices for Dey Products**  
 Cromolyn Sodium Inhalation Solution 20 mg/2 mL, unit dose vials, package of 60



NDCs Included: 49502068902

**Figure K**  
**Comparison of Prices for Dey Products**

Cromolyn Sodium Inhalation Solution 20 mg/2 mL, unit dose vials, package of 120



NDCs included: 49502068912

## Notes and Sources Corresponding to Figures A to K

### Notes:

I have excluded products for which AMP information was not available. These products are: Albuterol Sulfate Inhalation Solution Single-Pak™, 0.083% 3 mL, package of 30, Ipratropium Bromide Inhalation Solution 0.02%, 2.5 mL, package of 25 and Ipratropium Bromide Inhalation Solution 0.02%, Single-Pak™ 2.5 mL, package of 30. Postings for AWP are from Medispan.

Vertical lines indicate the date at which NDC's become inactive, as reported by Medispan.

### Sources:

Federal Supply Schedule Data for contract number V797P-5658X.  
First Amended Complaint In re: Pharmaceutical Industry Average Wholesale Price Litigation, September 29, 2008.  
First DataBank Data.  
Medispan Data.  
AMP information provided by Dey.  
Red Book Data.